



## ORIENTATION OF PUBLIC HEALTH NURSES WHO ARE TO PARTICIPATE IN EPIDEMIOLOGICAL FIELD INVESTIGATIONS \*

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As part of their routine activities, public health nurses have participated in local communicable disease control programs for many years. More recently they have been members of special field research teams. Their duties have included collecting epidemiological and clinical data; administering medications and immunizing agents under medical supervision; and observing and reporting results. They also have been responsible for a variety of detailed activities that may or may not be what has been considered customary nursing responsibilities. The necessary orientation to these assignments has usually taken the form of on-the-job or in-service training. Following World War II and the establishment of the Communicable Disease Center in the Bureau of State Services of the Public Health Service, the services of public health nurses were requested for epidemiological field programs in which the nurse was to play a somewhat different role.

### MALARIA CONTROL

Malaria control activities during the War pointed up the need for determining where malaria was occurring. The transmission of human malaria could be prevented if adequate control measures were applied to residual foci. The possibility of eradicating a disease that had annually cost millions of dollars and untold human misery seemed possible. Carefully applied eradication measures and epidemiological evaluation by trained personnel were necessary, if the progress made during the War was to be maintained and the new goal of eradication accomplished. Nursing assistance in the epidemiological phases of the malaria eradication program was needed.

In 1947 when the malaria appraisal program was started, no special preassignment training was provided. During the following year individual in-service training was given to the nurses in the

program by their Federal and State supervisors. The individualized training was sandwiched between other duties and although reasonably effective, was not always well organized nor complete. It soon became apparent that if the public health nurses assigned to this program were to function effectively, special training for the assignments was essential.

In 1949 the two nurses assigned to the program were given a preassignment orientation in the basic epidemiological principles in malaria appraisal. This training yielded encouraging dividends in quality of the service rendered.

Administrators responsible for the malaria eradication program have recommended that each of the 13 traditionally malaria States develop a surveillance and prevention program. A team which would be composed of an epidemiologist, an entomologist, and an engineer would be responsible for the investigation and confirmation of malaria transmission. Where transmission is established, control activities will be applied to knock out the focus of infection. Since the nurses already participating in the epidemiological phase of the malaria eradication program have made a substantial contribution, it was proposed that qualified nurses be recruited and trained for assignment in the extended program. One medical officer is now assigned to the program. It is expected that others will be recruited. Public health biologists with some special training also may be utilized, but the nurses probably will be responsible for carrying a considerable amount of the epidemiological activities.

### NEED FOR EPIDEMIOLOGICAL TRAINING

Requests were received from two State health departments for training in field epidemiology for two of their nurses. As all public health nurses in the Communicable Disease Center are subject to participate in the investigation of epidemics, training in this area is necessary for new appointees. Requests also have been received from

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State health departments that the appraisal and investigational services now being applied to malaria be extended to other significant disease problems, since malaria reporting has continued to decline. This tendency to broaden programs of communicable disease appraisal combined with the need for expanding the geographical scope of the malaria surveillance program has pointed up the need for a larger number of nurses with special training in communicable disease control. Hence, during 1950 plans for a more formal training course in the principles and practices of epidemiological investigations were drawn up and are currently being carried out.

### FIELD TRAINING PROGRAM

The first field training program for public health nurses was started October 2 at the Communicable Disease Center. The objectives of the course are: (1) To train public health nurses in the epidemiological investigations of the individual cases of significant communicable diseases. (2) To train public health nurses in the effective participation in the investigation of epidemics. (3) To train public health nurses in the use of epidemiological techniques in communicable disease appraisal programs.

The course is set up on a 3-month basis and includes 3 weeks of academic work in the head-

quarters office and 9 weeks of supervised experience in the field. The first section of the course attempts to present selected pertinent principles and practices in the fields of epidemiology, laboratory diagnosis, engineering and entomological control operations, and public health veterinary medicine. One of the 3 weeks of academic work is spent in the laboratory, learning through demonstration and practice, specimen collection, the principles of laboratory tests, and the interpretation of laboratory reports. Other student activities during this first academic session include a guided review of the literature available on one infectious disease, the study and analysis of epidemiological records, and a laboratory problem in handling pertinent statistical data and in solving a disease outbreak problem.

The second period of the course, composed of 9 weeks of supervised field training, is devoted to the investigation of individual cases of communicable diseases. The students also participate in the investigation of any epidemic which occurs during their period in the field. A study of a local county health department's immunization records is made, the problem defined, and recommendations outlined on the emphasis the control program should have in the future. This section of the course was supervised by the State epidemiologist in the Mississippi Board of Health and by a Communicable Disease Center nursing consultant assigned to this program.

We hope to learn through the student and faculty evaluation of this first course how to plan succeeding courses, so that they will fulfill the needs of nurse epidemiologists for practical in-service orientation.

### SUMMARY

In presenting this discussion, the writer has attempted to outline the events leading up to the development of a specialized field training program for public health nurses. In developing the program, we have tried to make it as practical as possible. Modifications of this type of practical field training in communicable disease control to meet the needs of other programs may develop at a later date.

